

Remarks

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks. Claims 1-20 remain in the application and stand rejected. New claims 21-30 have been added.

Rejections under 35 U.S.C. § 101

The Action rejects claims 11-16 under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Applicants respectfully traverse this rejection.

Claim 11 has been amended to include “a computer” including a kernel for simulating a circuit.

MPEP 2106.01 entitled “Computer-Related Nonstatutory Subject Matter” states the following:

Computer programs are often recited as part of a claim. USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory.

The claims are directed to a simulator that includes a computer. The computer is a statutory machine. As stated above, the MPEP acknowledges that merely because the claim includes a computer program does not make it non-statutory. Because the claim includes a computer and is clearly within a statutory class, it should not be rejected for failing to recite statutory subject matter.

Rejections under 35 U.S.C. § 102

The Action rejects claims 1-3, 7, 10-13, 16-17, and 20 under 35 U.S.C. § 102 (b) as being anticipated by Pino et al. Interestingly, the Examiner previously issued a rejection under 35 U.S.C. § 103, admitting that “Pino does not teach the time-domain signals comprising analog signals.” (Office action of 10/31/07 at page 4). The Examiner then stated that “Li teaches this limitation.” *Id.* Now it appears that the Examiner believes Pino does teach time-domain signals comprising analog signals.

However, Pino clearly does not teach this limitation of claim 1. The conclusion paragraph, found at page 1713 of Pino, states the following:

Timed synchronous dataflow enables efficient cosimulation between the synchronous DSP and analog RF portions of an application. It does this by extending SDF with explicit sampling rates on each arc and maintaining a representation of RF signals as a sampled envelope with a RF carrier frequency. By enabling the codesign of the various analog RF and DSP components throughout the design cycle, various long integration and test parts of the design cycle can be reduced.

Page 1713, Section 5

It could not be clearer that the paper is discussing codesign of digital components (DSP stands for **D**igital **S**ignal **P**rocessing) and RF components. The Examiner’s earlier Office action of 10/31/07, cited above, was correct in saying that Pino does not teach time-domain signals. Instead, it teaches time-frequency (RF) domain signals. The Examiner states “Pino teaches using SPICE for analog time domain simulator. This teaching indicates that the time domain signals are analog signals.” (Office action, page 4). But Pino does not teach using SPICE. In fact, Pino teaches away from using SPICE. Pino states that “[a]lthough SPICE can be used to simulate RF circuits, it is too expensive.” (Page 1711 paragraph 2.2). Additionally, Pino discusses using

SPICE for the RF component, not the analog component (which is consistent with the conclusion of Pino cited above).

By contrast, claim 1 requires “time-domain signals comprising analog signals, and ... time-frequency domain signals comprising RF signals.”

Amended claim 1 further requires “simulating time-domain representations of signals on the first set of nodes and simulating time-frequency domain representations of signals on the second set of nodes by interrelately solving two sets of non-linear equations until convergence.” Support for this amendment is found at page 5, lines 23-25.

The Examiner argues that “Pino teaches using SPICE to simulate analog time domain by solving a set of differential equations...” (Office action, page 5). As stated above, Pino teaches away from using SPICE. And there is no mention of solving non-linear equations interrelatedly as required by amended claim 1.

Amended claim 11 should also be in condition for allowance for the reasons stated above.

Claim 17 already includes the language “time-domain signals comprising analog signals, and ... time-frequency domain signals comprising RF signals” and “using two sets of equations and solving the two sets in an interrelated manner until convergence” and need not be amended.

Claims 2-3, 7, 10-13, 16, and 20 are dependent claims and are allowable for at least the reasons stated above. Dependent claims 2-3, 7, 10-13, 16, and 20 also recite independently patentable combinations of features. Accordingly, Applicants request that the Examiner’s rejections of claims 2-3, 7, 10-13, 16, and 20 also be withdrawn.

Claim Rejections under 35 U.S.C. § 103(a)

The Action rejects claims 4-6, 14-15, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Pino in view of Li et al. The Action also rejects claims 9 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Pino in view of Gabele et al.

All claims rejected under 35 USC § 103(a) are dependent claims. Because the independent claims are allowable for the reasons stated above, dependent claims 4-6, 9, 14-15, 18, and 19 are also in condition for allowance. Dependent claims 4-6, 9, 14-15, 18, and 19 also recite independently patentable combinations of features. Accordingly, Applicants request that the Examiner's rejections of claims 4-6, 9, 14-15, 18, and 19 also be withdrawn.

Interview Request

If the claims are not found by the Examiner to be allowable, the Examiner is formally requested to call the undersigned attorney to set up an interview to discuss this application. This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request.

Conclusion

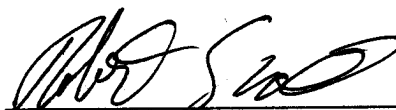
The claims in their present form should be allowable. Such action is respectfully requested.

Respectfully submitted,

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